

**REMARKS**

The specification has been amended to correct typographical errors.

Claims 1-27 remain pending in the application.

A version with markings to show changes begins on the following page.

No fee is required for this amendment.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

**In the Specification:**

The following paragraphs have been replaced:

Page 1, lines 9-13:

-- This application claims the benefit under 35 U.S.C. § 119(e) of United States provisional application with Serial No. 60/266,685 (PD-200277) filed on February 5, 2001, entitled MULTIPLE LINK FIXED TERMINAL FOR GEOSTATIONARY [GEOSTATIONARY] COMMUNICATIONS USERS.--

Page 4, lines 34 and 35 and continued on page 5,  
lines 5-19:

-- The dashed lines in FIG. 1 indicate exemplary radio frequency (RF) wireless communications linkages 105 in the [a] satellite communications system 100. The wireless communications linkages 105 connect the Internet nodes 108 to each of the user terminals 110 via multiple geostationary satellites 102. The wireless communications linkages 105 may be, for example, forward and return radio frequency (RF) links established in the same manner and with similar equipment used for cellular telephone systems. The actual number and configuration of the radio frequency (RF) wireless communications linkages 105 between the user terminals 110 and the geo-stationary satellites 102 may change according to traffic conditions and available resources in the geo-stationary satellites 102. The wireless communications linkages 105 in the satellite communications system [communications network] 100 may therefore be characterized as

dynamic. --

Page 5, lines 27-35:

-- One or more Internet nodes 108 may be connected to the geo-stationary satellites 102. Each of the Internet nodes 108 may be, for example, a hub through which users are connected to the Internet. In this case, the geo-stationary satellites 102 provide last mile connectivity to the user terminals 110. The Internet nodes 108 may each be conveniently located anywhere within the field of view of the corresponding geo-stationary satellite 102.--

Page 7, lines 23-35 and continued on page 8, lines 5-11:

-- The bandwidth of the wireless communications linkages 105 may also be dynamic. Each of the RF communications base terminals 104 may have several data rates, and the data rates may differ among the RF communications base terminals 104, so that the bandwidth required by a user terminal 110 is always available. A single RF communications base terminal 104 may provide only a small portion of the total data throughput when the quality of a wireless communications linkage 105 drops, or the RF communications base terminal 104 may provide a significant portion of the data throughput when the quality of the wireless communications linkage 105 rises. User terminals 110 operate independently from the availability of any single wireless communications linkage 105, rather from a combination of multiple wireless communications linkages 105 operating in parallel concurrently. The multiple wireless communications linkages 105 deliver data packets between the multiple link

user terminal 110 and an information source (data server) or sink (client) in the Internet 106.--

Page 8, lines 12-22:

-- The Internet 106 may be, for example, the global Internet or any other communications network based on an Internet protocol. Well known Internet protocol allows currently available routers to be used in the multiple link user terminals 110 for both the transmit and receive modes. The Internet infrastructure inherently accommodates data packets or frames arriving by different routes at different times, and Internet protocol ensures that the data packets are re-arranged at the destination in the proper sequence and are presented in the right format for each specific application.--

Page 10, lines 29-35 and continued on page 11, lines 5 and 6:

-- FIG. 3 is a detailed diagram of one of the multiple link user terminals 110 of FIG. 1. Shown in FIG. 3 are received signals 208, amplifiers 304, bandpass filters 306, a modulator-demodulator (modem) 308, a router & hub 310, a transport layer 314, applications 316, an estimation processor 318, and external calibration information 320. The description of the multiple link user terminal 110 below applies to the receive mode, and applies reciprocally to the transmit mode.--

Page 11, lines 16-35:

-- The router & hub 310 connects the user network links to the Internet 106 via the wireless communications linkages

[links] 105 provided by each of the geo-stationary satellites 102 and shuffles data packets from various wireless linkages 105 connected via the geo-stationary satellites 102 to the Internet. The router & hub 310 performs the "network" layer functions. The number of available communication linkages to the Internet 106 may be dynamic and is generally limited to less than 10. Also, there may be more forward links (terminal in receive mode) than return links (terminal in transmit mode), and some of the wireless communication linkages 105 may be bi-directional while others may be uni-directional. The router & hub 310 includes a routing table that is updated independently for each user terminal 110 by the estimation processor 318. In a geo-stationary satellite system, the routing table content is generally stable. The table dynamics are mainly a result of traffic variations in the user network or Internet and not of changes in communications topology.--

Page 16, lines 5-21:

-- The user terminal 110 described above may be used for broadband last mile connectivity to connect multiple subscribers to the Internet, advantageously providing multiple wireless connections in a physical layer. The multiple wireless connections support various applications concurrently with robust and dynamic interconnectivity and may be used to increase system capacity limited by satellite slots and available bandwidth. A broad spectrum of digital multimedia services including satellite digital TV systems, such as DirecTV, may be provided using existing satellites while eliminating the single point failure problem presently confronting all satellite systems. By breaking the barrier of

capacity limitation, the multiple link user terminal [link] 110 of the present invention enables a multimedia service provider to deliver multi-casting services more effectively.--